

What is claimed is:

1. A method for getting dump of a computer system that adopts virtual storage management by which virtual  
5 storage is available using main storage, auxiliary storage, and an address translation table for indicating a location in the main storage or in the auxiliary storage to which an individual virtual-storage area is allocated, said method comprising the steps of:
- 10 providing said auxiliary storage with first auxiliary storage and second auxiliary storage;  
operating the computer system using either of the first auxiliary storage or the second auxiliary storage;  
determining a location to which the address  
15 translation table is allocated, when occurrence of a failure in the computer system is detected;  
determining a location in the main storage, or in the auxiliary storage, where information in the virtual-storage area is stored, which is described in the address  
20 translation table;  
transferring the content of the virtual-storage area from the main storage to the auxiliary storage, if the content of the virtual-storage area is allocated to the main storage; and  
25 switching the first auxiliary storage to the second

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auxiliary storage for use if the first auxiliary storage is used for operation, or switching the second auxiliary storage to the first auxiliary storage for use if the second auxiliary storage is used for operation.

5           2. A method for getting dump according to Claim 1, wherein:

                  from among the virtual-storage pages that have been allocated to the main storage, only areas, which have been updated since the areas were allocated to the main storage,  
10       are extracted, and are then transferred from the main storage to the auxiliary storage.

                  3. A method for getting dump according to Claim 1, wherein:

                  when occurrence of a failure in the computer system  
15       is detected, content of an area in the main storage, which has not been associated with the virtual storage by the address translation table, is stored in a given area in the auxiliary storage.

                  4. An apparatus for getting dump of a computer  
20       system that adopts virtual storage management by which virtual storage is available, said apparatus comprising:

                  auxiliary storage comprising first auxiliary storage and second auxiliary storage;

                  a means for operating the computer system using  
25       either of the first auxiliary storage or the second

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auxiliary storage;

a means for determining a location in main storage, or in the auxiliary storage, where information in a virtual-storage area is stored, according to an address translation table when occurrence of a failure in the computer system is detected;

a means for transferring content of the virtual-storage area from the main storage to the auxiliary storage if content of the virtual-storage area is allocated to the main storage, and if the content of the virtual-storage area has been updated since the virtual-storage area was allocated to the main storage; and

a means for switching the first auxiliary storage to the second auxiliary storage for use if the first auxiliary storage is used for operation, and for switching the second auxiliary storage to the first auxiliary storage for use if the second auxiliary storage is used for operation.

5. An apparatus for getting dump of a computer system that uses virtual storage, said apparatus comprising:

auxiliary storage comprising first auxiliary storage and second auxiliary storage;

an address translation table for indicating a location in main storage, or in auxiliary storage, where information in a virtual-storage area is stored;

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a means for transferring content of the virtual-storage area from the main storage to the auxiliary storage according to the address translation table when occurrence of a failure in the computer system is detected, if the content of the virtual-storage area is allocated to the main storage, and if the content of the virtual-storage area has been updated since the virtual-storage area was allocated to the main storage; and

a means for switching the first auxiliary storage to the second auxiliary storage for use if the first auxiliary storage is used for operation, and for switching the second auxiliary storage to the first auxiliary storage for use if the second auxiliary storage is used for operation.

6. A method for getting dump of a computer system that uses virtual storage, said method comprising the steps of:

controlling the virtual storage according to an address translation table that indicates a location in main storage, or in first auxiliary storage, where information in a virtual-storage area is stored;

storing content of the virtual-storage area, which has been updated since the virtual-storage area was allocated to the main storage, in the first auxiliary storage according to the address translation table when occurrence of a failure in the computer system is detected;

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and

switching the first auxiliary storage, which is working, to the second auxiliary storage.

7. A method for getting dump of a computer system that uses a plurality of pieces of virtual storage, said method comprising the steps of:

controlling each of the plurality of pieces of virtual storage according to an address translation table corresponding to each virtual storage, which indicates a location in main storage, or in first auxiliary storage, where information in each area of the plurality of pieces of virtual storage is stored;

storing content in each area of the plurality of pieces of virtual storage, which has been updated since the area of the virtual storage was allocated to the main storage, in the first auxiliary storage according to the address translation table when occurrence of a failure in the computer system is detected; and

switching the first auxiliary storage, which is working, to the second auxiliary storage.

8. A method for getting dump of a computer system that uses virtual storage, said method comprising the steps of:

controlling the virtual storage according to an address translation table that indicates a location in main

storage, or in first auxiliary storage, where information in a virtual-storage area is stored;

saving the address translation table in the first auxiliary storage if page-out occurs in the address

5 translation table; and

storing content of the virtual-storage area, which has been updated since the virtual-storage area was allocated to the main storage, in the first auxiliary storage according to the address translation table when  
10 occurrence of a failure in the computer system is detected; and

restoring the address translation table, which has been saved in the first auxiliary storage, in the main storage before switching the first auxiliary storage, which  
15 is working, to second auxiliary storage.

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